CHAPTER 5 - SPECIAL CONSIDERATIONS IN HANDLING PRECIOUS METALS

A. GENERAL. DRMO processing of precious metals bearing material and scrap requires additional controls and precautions due to the nature of the material. In addition to other regulatory guidance, the instructions contained within this section are to be followed.

B. SCALES

1. Obtain calibration of gram scales used to weigh V-coded SCLs from a certifying authority whenever the scale is suspected of not weighing correctly. Calibrate scales at least once every 12 months. For the purposes of this paragraph, calibration is defined as any method or technique utilized by a certifying authority to check a scale's accuracy. Maintain records of the calibration in your DRMO files.

2. Accomplish calibration of the Ohaus Scale Corporation Model 1119D in use at most DRMOs as follows:

a. Test the accuracy of scale operation by verification of zero-balance capability and comparison of scale counterweights to manufacturer's specified weights on a quarterly basis. Conduct and document this test with use of DRMS Form 1727, Ohaus Scale Testing Verification (Model 1119 D).

b. Include as a minimum, calibration certification of the scale counterweights by a certifying authority.

3. Coordinate the method or technique acceptable for calibration of other gram scales in use at DRMOs with DRMS-R equipment specialist.

4. Certify and calibrate scales and weights according to state and/or local regulations.

C. SECURITY

1. According to physical security criteria identified in DRMS-I 4160.14, Volume I, Chapter 2, paragraph E5, store precious metals bearing scrap in keeping with the value of recoverable precious metals. Locations should not be identified as containing precious metals. The requirements set forth below have been determined the minimum acceptable to preclude loss of precious metals bearing scrap:

a. Store all V-coded SCLs in a safe or comparable container within the DRMO secured area.

b. SCL P02 used photo fixer is considered a hazardous waste and will not be received at the DRMO for the DoD PMRP (see Chapter 4, paragraph E.5).

c. SCL P06 exhausted chemical recovery cartridges (steel wool cartridges) are considered hazardous by some states. Materials that are to be recycled for precious metals recovery that are classified as hazardous wastes do not have to be stored in conforming storage, no permit is required and accumulation is not limited to 90 days. Records must be kept that indicate annual beginning and ending inventories as well as generations. Records must indicate at least 75 percent of the annual accumulation has been recycled. If not, then speculative accumulation is occurring and the exemptions regarding permits/time frames no longer apply. State/local regulations may differ from Federal EPA and, if so, must be adhered to. In any case, proper security should be afforded these items. (see Chapter 4, paragraph E.7)

d. Store SCLs PSC, P8A, P8B, P8C, P81, P83, P84 and P87 in the DRMO secured area.

e. Store SCLs P07 and P08 in the designated area for hazardous/toxic material; this may be either DRMO or host display depending on which has been designated as having most conforming storage.

f. Store SCLs P04, P05, P12, PB4, PB5 and PB6 inside.

g. You may store SCLs P13, PB1, PB2, P24, P8E and P8G outside if inside storage is not available. Locate storage within the fenced area of the DRMO and, if practical, within view of property management personnel. Store SCL P8E in covered and banded containers.

h. Keep the precious metals electronic scrap breakdown area away from any public traffic flow area and restricted to authorized personnel only.

2. A waiver to these requirements may be granted by the DRMS-National/InternationalCommander if individual DRMO capacity and/or restraints preclude adherence. Submit justification to the DRMS-National/International Command for coordination with the Office of Command Security to determine if proposed deviation is a viable alternative. Waivers may be granted for any period of time, dependent upon the circumstances, but subject to review for verification every 6 months.

3. Consult the Office of Command Security in development of any new display plans or for evaluation of adequacy of existing plans.

D. SAFETY, HEALTH AND ENVIRONMENTAL

1. Many of the procedures inherent in processing precious metals bearing material or scrap are dangerous and require preventive measures to preclude injury/illness to personnel, damage to property, or pollution of the environment. Among the more commonly recognized hazards associated with precious metals processing are:

a. Prolonged exposure to low level concentrations of gold or silver compounds, varying in toxicity, could cause chronic liver degeneration, blood disorders and skin allergies. Toxic effects are caused by ingestion or inhalation of the compounds.

b. Possible ground and water pollution could occur when spent hypo solution is discharged from a silver recovery operation. Use of electrolytic silver recovery equipment could also present electrical hazards.

c. Operation of incinerators used to produce precious metals bearing ash could present safety, fire, health or environmental pollution problems.

d. Some items containing precious metals are dangerous: stripping and plating solutions/residues may contain acids and cyanides; silver-cadmium and silver-zinc batteries contain acid and hydroxide electrolytes; some batteries contain explosive devices; and computers may contain PCB transformers.

2. In addition to the requirements of DLAD 6055.1 and DRMS-I 4160.14, Volume I, the following precautions and preventive actions must be instituted for processing precious metals bearing material and scrap:

a. Buildings and equipment used in the precious metals recovery program must meet OSHA Standards or equivalent standards established by the Military Services. Contact host installation safety offices, fire departments, medical offices and environmental offices to coordinate on the following:

(1) Buildings must have proper illumination, ventilation, fire exits, fire protection and posted floor loads.

(2) Electrical equipment must be Underwriters Laboratory (UL) or Factory Mutual (FM) labeled. Locally fabricated precious metals recovery equipment must be inspected by host electrical department to ensure construction, installation and use is according to the National Electric Code (NEC) requirements.

b. Evaluate employees involved in Precious Metals recovery as to the need for being enrolled in a medical surveillance program. (See in DLAM 6055.1, Chapter V, paragraph p.)

c. Do not use DRMO personnel to process or disassemble dangerous property containing precious metals unless specific, explicit instructions have been received either from the generating activity, host installation or HQ DRMS and it has been determined there will be no risk to DRMO personnel.

d. Fire protection and prevention is normally provided by the host installation.